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10/023,452

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EXAMINER

SEDIGHIAN, REZA

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,452

Applicant(s)

PELLETIER ET AL.

Examiner

M. R. Sedighian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/9/02 and 5/27/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Oliver (US Patent Application Publication No: 2003/0112363).

Regarding claim 14, Oliver teaches an apparatus, comprising: a transmitter (30, fig. 1) for converting electrical information input signals received from a camera to an optical output signal (Page 2, paragraph 0020); and a housing for holding the transmitter (Page 2, paragraph 0017) and adapted for mounting to a camera (Page 3, see claim 16).

Regarding claim 17, Oliver further teaches a receiver (26, fig. 1) for converting an optical input signal to electrical information output signal (Page 2, paragraph 0020) and wherein the housing is further adapted for holding the receiver (Page 3, see claim 16).

3. Claims 18 and 20-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (US Patent No: 6,115,159).

Regarding claim 18, Baker teaches a system comprising: a camera-mountable optical transceiver (24, fig. 2) for transmitting a downstream optical signal (OCA, fig. 2) and for receiving an upstream optical signal (OCU, fig. 2); a remote optical transceiver (22, fig. 2) for transmitting the upstream optical signal (OCU, fig. 2) and for receiving the downstream optical

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signal (OCA, fig. 2); a fiber optic cable (30, fig. 2) coupled between the camera-mountable optical transceiver (24, fig. 2) and the remote transceiver (22, fig. 2) for carrying the downstream (OCA, fig. 2) and upstream (OCU, fig. 2) optical signals (col. 3, lines 25-48).

Regarding claim 20, Baker further teaches the camera optical transceiver (24, figs. 2, 3) comprises: a transmitter (118, fig. 3) for coupling between a camera (12, fig. 2) and the fiber cable (30, fig. 2) and adapted for converting an electrical input information signal (CA, figs. 2, 3) received from the camera to the downstream optical signal (col. 3, lines 49-67, col. 4, lines 1-33); and a receiver (122, fig. 3) for coupling between the fiber and the camera and adapted for converting the upstream optical signal to an electric information output signal (col. 4, lines 50-59).

Regarding claim 21, Baker further teaches the electrical information input and output signals include video signals (col. 4, line 58).

Regarding claim 22, Baker further teaches the electrical information input and output signals include audio signals (col. 3, line 20-22).

Regarding claim 23, Baker further teaches the electrical information input and output signals include data signals (col. 4, line 58).

Regarding claim 24, Baker further teaches the remote optical transceiver (22, figs. 2, 4) comprises: a transmitter (218, fig. 4) for coupling between a remote camera control unit (10, fig. 2) and the fiber (30, fig. 2) and adapted for converting an electrical information input signal (CU, figs. 2, 4) received from the remote camera control unit (10, fig. 2) to the upstream optical signal (OCU, figs. 2, 4); and a receiver (222, fig. 4) for coupling between the fiber cable (30, fig. 2) and the camera control unit (10, fig. 2) and adapted for converting the downstream optical signal

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received from the fiber to an electrical information output signal (col. 5, lines 53-67, col. 6, lines 1-6).

Regarding claim 25, Baker teaches the optical transceiver (24, fig. 2) include a connector cable (18A, 14B, fig. 2) for electrically connecting the optical transceiver (24, fig. 2) to a camera (12, fig. 2) and wherein the optical transceiver is adapted to select a camera specific data signal type responsive to a connector cable option (col. 3, lines 25-35).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-14, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desmons (US Patent No: 5,150,442).

Regarding claims 1, 14, and 26-27, Desmons teaches a transceiver for providing an interface between a camera (10, fig. 2) and a fiber optic cable (1, fig. 2), comprising: a transmitter (11, fig. 2) for coupling between the camera and the fiber optic cable (col. 3, lines 7-15, 35-39) and adapted for converting an electrical information input signal (A, fig. 2) received from the camera to an optical output signal (col. 3, lines 40-42); a receiver (13, fig. 2) for coupling between the fiber optic cable and the camera (col. 3, lines 65-68) and adapted for converting an optical input signal received from the fiber cable to an electrical information output signal (col. 3, line 68). Desmons differs from the claimed invention in that Desmons does not specifically disclose a housing for holding the transmitter and the receiver and adapted for

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mounting to the camera. However, it is well known that electrical or optical components can be housed within a housing for reasons of protection, isolation, and safety. It is obvious to a person of ordinary skill in the art at the time of invention that the transmitter and receiver of Desmons are housed within a housing, and that the transmitter and receiver are mounted to the camera, in order for the transmitter and receiver to transmit and receive the incoming electrical information signals optically. Regarding claims 26-27, Desmons teaches the transceiver (11, 13, fig. 2) can be used as an interface between a video production facility (col. 3, lines 10-27) and a fiber optic cable (1, fig. 2), and that is comprised of a transmitter (11, fig. 2) and a multiplexer (16, fig. 2), and a receiver (13, fig. 2) and a demultiplexer (17, fig. 2).

Regarding claim 3, Desmons teaches the electrical information input signal includes a video signal (col. 3, line 17).

Regarding claim 4, Desmons teaches the electrical information input signal includes an audio signal (col. 3, line 19).

Regarding claim 5, Desmons teaches the electrical information input signal includes data signal (col. 3, line 19-22).

Regarding claim 6, Desmons teaches the electrical information output signal includes a video signal (col. 3, line 17).

Regarding claim 7, Desmons teaches the electrical information output signal includes an audio signal (col. 3, line 19).

Regarding claim 8, Desmons teaches the electrical information output signal includes data signal (col. 3, line 19-22).

Regarding claim 9, Desmons further teaches a wave division multiplexer (12, fig. 2 and col. 4, lines 4-11) adapted for coupling the optical output signal from the transmitter (11, fig. 2) to the fiber (1, fig. 1) and for coupling (12, fig. 2) the optical input signal from the fiber to the receiver (13, fig. 2).

Regarding claim 10, Desmons further teaches the electrical information input signal includes plural information signals (CA, fig. 2) received from the camera (col. 3, lines 35-36) and wherein the transmitter includes a multiplexer (16, fig. 2) for multiplexing the plural camera information signals to a multiplexed electrical input signal (col. 3, lines 35-38) and an electro-optical converter (11, fig. 2) for converting the multiplexed electrical input signal to an optical output signal (col. 3, lines 39-43).

Regarding claim 11, Desmons differs from the claimed invention in that Desmons does not specifically disclose the camera information signals comprises an analog information signal and further comprising analog-to-digital converter for converting the analog information signal to a digital signal for input to the multiplexer. However, Desmons teaches the transmission of electrical signals CA, such as video signals, coming from the camera head 10, wherein the signals CA are first digitalized, and serialized in a device S1 (col. 3, lines 35-37). Accordingly, at least one of the transmitted input signals CA can be of an analog input signal that is further digitalized by the device S1 (or by an analog-to-digital converter).

Regarding claim 12, Desmons further teaches the receiver includes an optical to electrical converter (13, fig. 2) that converts the optical input signal to a multiplexed electrical signal (B, fig. 2) and a demultiplexer (17, fig. 2) for demultiplexing the multiplexed electrical signal to plural remote information signals (UC, fig. 2 and col. 3, lines 67-68, col. 4, lines 1-3).

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Regarding claim 13, Desmons further teaches digital to analog converter circuitry for converting one of the remote information signals to an analog signal (col. 4, lines 1-3).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Desmons (US Patent No: 5,150,442) in view of Bennett (US Patent No: 5,642,160), or Hurwitz (US Patent No: 5,568,205).

Regarding claim 2, Desmons differs from the claimed invention in that Desmons does not disclose a housing that includes a first plate on a first side for mounting the housing to the camera and a second plate on a second side adapted for mounting the housing to a power source. However, it would have been obvious that plates and/or connectors are needed and can be provided to connect the transmitter and the receiver to the camera, and to connect the camera to a power source. For example, Bennett teaches a camera (422, fig. 4) which is mounted to a housing (20, fig. 4) by means of a first plate on a first side (412, fig. 4), and a second plate (422a, fig. 4, note that connector 422a can be connected through a plate to camera 422) on a second side adapted for mounting the housing to a power source (col. 4, lines 11-29). Likewise, Hurwitz teaches about a camera mounted wireless audio/video transmitter system (17, 18, 19, 33, 41, fig. 1 and col. 6, lines 11-27), wherein a customized mounting plate is provided (col. 6, lines 15-17) within a transmitter (19, fig. 1) to make a power source (18, fig. 1) integrable with the camera (17, fig. 1). Therefore, it would have been obvious to an artisan at the time of invention to incorporate a first and a second plates, as it is taught by Bennett or Hurwitz, in the camera housing of Desmons in order to connect the transceiver module, the camera, and a power source to obtain the power required for transmission.

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7. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (US Patent Application Publication No: 2003/0112363) in view of Bennett (US Patent No: 5,642,160), or Hurwitz (US Patent No: 5,568,205).

Regarding claim 15, Oliver differs from the claimed invention in that Oliver does not disclose a housing that includes a first plate on a first side for mounting the housing to the camera and a second plate on a second side adapted for mounting the housing to a power source. However, it would have been obvious that plates and/or connectors can be provided to connect the transmitter and the receiver to the camera, and to connect the camera to a power source. For example, Bennett teaches a camera (422, fig. 4) which is mounted to a housing (20, fig. 4) by means of a first plate on a first side (412, fig. 4) and a second plate (422a, fig. 4, note that connector 422a can be connected through a plate to camera 422) on a second side, adapted for mounting the housing to a power source (col. 4, lines 11-29). Likewise, Hurwitz teaches about a camera mounted wireless audio/video transmitter system (17, 18, 19, 33, 41, fig. 1 and col. 6, lines 11-27), wherein a customized mounting plate is provided (col. 6, lines 15-17) within a transmitter (19, fig. 1) to make a power source (18, fig. 1) integrable with the camera (17, fig. 1). Therefore, it would have been obvious to an artisan at the time of invention to incorporate a first and a second plates, as it is taught by Bennett or Hurwitz, in the camera housing of Oliver in order to connect the transceiver module, the camera, and the power source to obtain the power required for transmission.

Regarding claim 16, Oliver teaches the power is passed from the power source to the camera through the housing and is tapped off to supply power to the apparatus (note that power

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source 32 can provide power to the electro-optical components of the camera pickup component 4).

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (US Patent No: 6,115,159) in view of Oliver (US Patent Application Publication No: 2003/0112363) and in further view of Bennett (US Patent No: 5,642,160), or Hurwitz (US Patent No: 5,568,205).

Regarding claim 19, Baker further teaches the transceiver (24, fig. 3) is connected to a power source (132, fig. 3 and col. 5, lines 25-28). As to a housing for the optical transceiver, it is obvious that camera interface unit 24 of Baker is housed within a housing. Furthermore, Oliver teaches a camera pickup component (4, fig. 1) that is comprised of a mountable optical transceiver (24, fig. 1) and a power source (32, fig. 1) that are housed within a housing (Page 3, claim 16). As it is taught by Oliver, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a housing for the electro-optical components and circuitries of Baker in order to provide protection, isolation, and safety. The combination of Baker and Oliver further differs from the claimed invention in that Baker and Oliver do not disclose a housing that includes a first plate on a first side of the housing for mounting to the camera and a second plate on a second side of the housing adapted for mounting to a power source. However, it would have been obvious that plates and/or connectors are needed and can be provided to connect the transceiver, the camera, and a power source. For example, Bennett teaches a camera (422, fig. 4) which is mounted to a housing (20, fig. 4) by means of a first plate on a first side (412, fig. 4) and a second plate (422a, fig. 4, note that connector 422a can be

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connected through a plate to camera 422) on a second side adapted for mounting the housing to a power source (col. 4, lines 11-29). Likewise, Hurwitz teaches about a camera mounted wireless audio/video transmitter system (17, 18, 19, 33, 41, fig. 1 and col. 6, lines 11-27), wherein a customized mounting plate is provided (col. 6, lines 15-17) within a transmitter (19, fig. 1) to make a power source (18, fig. 1) integrable with the camera (17, fig. 1). Therefore, it would have been obvious to an artisan at the time of invention to incorporate a first and a second plates, as it is taught by Bennett or Hurwitz, for the camera housing in the modified optical transceiver of Baker and Oliver in order to connect the transceiver module, the camera, and the power source to obtain the power required for transmission.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


M. R. SEDIGHIAN
PRIMARY EXAMINER